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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/031,949	05/01/2002	Guy Couarazc	03715.0105	8770

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EXAMINER	
STITZEL, DAVID PAUL	
ART UNIT	**PAPER NUMBER**
1616	

DATE MAILED: 01/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/031,949	COUARAZE ET AL.	
	Examiner	Art Unit	
	David P. Stitzel, Esq.	1616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 November 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *1/25/02*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

OFFICIAL ACTION

Acknowledgment of Receipt

The new Examiner of record acknowledges receipt of the Applicants' Response, which was filed on November 16, 2004, to the Official Action dated August 17, 2004.

Status of Claims

Claims 1, 7, 9-11 and 13 were amended, while claims 15-16 were added, by an amendment filed on November 16, 2004. As a result, claims 1-16 are currently pending and therefore examined herein on the merits for patentability.

Specification Objection

The following guidelines illustrate the preferred arrangement or layout for the specification of a utility application. These guidelines are suggested for the Applicants use.

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs); or REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a); "Microfiche Appendices" were accepted by the Office until March 1, 2001).
(f) BACKGROUND OF THE INVENTION.
(1) Field of the Invention.
(2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.

(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).

Claim Rejections - 35 U.S.C. § 112, First Paragraph

The following is a quotation of the first paragraph of 35 U.S.C. § 112, which forms the basis of the claim rejection as set forth under this particular section of the Official Action:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same, and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claim 11 is rejected under 35 U.S.C. § 112, first paragraph, as failing to comply with the written description requirement. The claim as amended introduces new matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. More specifically, claim 11 recites a "compression premix ... intended to be subject to direct compression." However, the specification (page 14, lines 5-10) provides support for a "tableting premix ... intended to be subjected to direct compression." The claim language reciting "intended to be subjected to direct compression" is directed to an intended future use of said tableting premix. Moreover, a "***compression*** premix" is broader in scope than a "***tableting*** premix." While support in the specification does in fact exist for amending claim 11 to recite a "tableting premix," inadequate support exists in said specification for amending said claim to recite a "compression premix," thereby resulting in the addition of new matter. Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 112, Second Paragraph

The following is a quotation of the second paragraph of 35 U.S.C. § 112, which forms the basis of the claim rejections as set forth under this particular section of the Official Action:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

1. Claim 10 is rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. More specifically, claim 10 recites the limitation "system." There is insufficient antecedent basis for this limitation in either claim 10, or independent claim 1, upon which claim 10 is dependent. Appropriate correction is required.

Claim Rejections - 35 U.S.C. § 102

The following is a quotation of the appropriate paragraph of 35 U.S.C. § 102, which forms the basis of the anticipation rejections as set forth under this particular section of the Official Action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 7 and 10 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 4,489,026 (hereinafter the Yalkowsky '026 patent).

With respect to claims 1, 7 and 10 of the instant application, the Yalkowsky '026 patent discloses a tablet formed by direct compression, wherein said tablet comprises: an inert, pharmacologically acceptable, excipient microparticle suitable as a direct compression vehicle or carrier; and an ultra-low dosage of a pharmaceutically active material uniformly deposited onto said

inert, pharmacologically acceptable, excipient microparticle (column 1, lines 5-23; column 3, lines 1-33; column 4, lines 45-54). The inert, pharmacologically acceptable, excipient microparticle may be composed of lactose, starch and/or talc (column 4, lines 31-45). The pharmaceutically active material is present within said tablet in an amount of less than or equal to 100 μg, particularly less than or equal to 10 μg, and more particularly 1 μg, per 200 mg of excipient (column 2, lines 59-64; column 3, lines 40-42; column 5, lines 59-61). That is, said tablet comprises less than or equal to 0.5 mg/g, and more particularly 0.005 mg/g, of said pharmaceutically active material. Therefore, said pharmaceutically active material is present in an amount of less than or equal to 0.05% by weight, and more particularly less than or equal to 0.0005% by weight, of said tablet, thereby reading upon a tablet comprising less than 40 mg/g, less than 1% by weight, and less than 10 mg/g, of active principle as claimed in claims 1, 7 and 10, respectively.

Claim Rejections - 35 U.S.C. § 103

The following is a quotation of the appropriate paragraph of 35 U.S.C. § 103, which forms the basis of the obviousness rejections as set forth under this particular section of the Official Action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2-6, 8-9 and 11-16 are rejected under 35 U.S.C. § 103(a) as being unpatentable over the Yalkowsky '026 patent in view of U.S. Patent 4,983,399 (hereinafter the Maish '399 patent).

The teachings of the Yalkowsky '026 patent are incorporated herein by reference and are therefore applied in the instant rejection as discussed hereinabove.

With respect to claims 2, 3 and 14 of the instant application, the Yalkowsky '026 patent teaches that the maximum mean particle diameter of said inert, pharmacologically acceptable, excipient microparticle having a pharmaceutically active material uniformly deposited thereon is in the range of from about 0.5 μm to about 10 μm (column 6, lines 43-44). The Yalkowsky '026 patent therefore does not explicitly teach a microparticle having a particle size between 100 μm and 2000 μm, as claimed in claim 2 of the instant application. However, the Maish '399 patent teaches a direct compression microparticulate tableting composition having a mean particle diameter in the range from about 50 μm to about 300 μm (column 1, lines 5-18, 32-36 and 66-68; column 2, lines 1-5; column 4, lines 26-29). It would have been prima facie obvious to one of ordinary skill in the art at the time the instant application was filed to modify the particle size of the microparticle of the Yalkowsky '026 patent, to a larger particle size, as taught by the Maish '399 patent, especially since the Yalkowsky '026 patent explicitly teaches that the upper limit of the total spraying time for spraying said pharmaceutically active material uniformly onto said inert, pharmacologically acceptable, excipient microparticle is not critical (column 4, lines 16-17). In addition, the Yalkowsky '026 patent teaches that although there are a very large number of microparticles having particle diameters between 0.5 μm to about 10 μm, the variation of the particle diameters is not precisely controllable and is variable up to about 100% for a preferred spraying time of about 10 minutes (column 4, lines 7-19; column 6, lines 41-62). Therefore, increased spraying times for spraying said pharmaceutically active material uniformly onto said inert, pharmacologically acceptable, excipient microparticle beyond a spraying time of about 10 minutes would result in microparticles having increased particle diameters beyond 0.5 μm to about 10 μm. One of ordinary skill in the art at the time the instant application was filed would have been motivated to modify the particle diameters of the microparticle of the Yalkowsky '026 patent, because not only

does the Yalkowsky '026 patent teach that the total spraying time is not critical, but also the Maish '399 patent teaches that a direct compression microparticulate tableting composition having a mean particle diameter in the range from about 50 μm to about 300 μm results in a free-flowing composition, thereby effectuating content uniformity among the manufactured tablets by promoting uniform distribution of the inert components and the medicament (column 3, lines 3-20; column 4, lines 26-29).

With respect to claims 8, 9, 11 and 15 of the instant application, the Yalkowsky '026 patent teaches a tablet formed from direct compression of an inert, pharmacologically acceptable, excipient microparticle having a pharmaceutically active material uniformly deposited thereon; wherein said microparticle may comprise starch, lactose and/or talc (column 4, lines 31-45). The Yalkowsky '026 patent does not explicitly teach a particular weight percent of said talc. However, the Maish '399 patent teaches a direct compression microparticulate tableting composition comprising: an inert diluent, such as starch, lactose and the like; an inert lubricant, such as talc, stearic acid, magnesium stearate, calcium stearate, silica and PEG; and a medicament; wherein said lubricant is present in the range from about 0.25% to about 5.0% by weight (column 2, lines 50-54; column 3, lines 3-20 and 42-52; column 5, lines 9-13). It would have been prima facie obvious to one of ordinary skill in the art at the time the instant application was filed to modify the microparticle of the Yalkowsky '026 patent, by incorporating an inert lubricant, such as not only talc, but also stearic acid, magnesium stearate, calcium stearate, silica and PEG, in an amount from about 0.25% to about 5.0% by weight, as taught by the Maish '399 patent, especially since the Maish '399 patent teaches the interchangeability of stearic acid, magnesium stearate, calcium stearate, silica and PEG with talc at the aforementioned weight percent range (column 3, lines 3-20 and 42-52). One of ordinary skill in the art at the time the instant application was filed would have been motivated to incorporate an inert lubricant, such as talc,

stearic acid, magnesium stearate, calcium stearate, silica and PEG, in an amount from about 0.25% to about 5.0% by weight, into the microparticle of the Yalkowsky '026 patent, so as to promote uniform distribution of the inert components and the medicament thereby effectuating content uniformity among the manufactured tablets, as reasonably suggested by the Maish '399 patent (column 3, lines 9-11).

With respect to claims 4-6 of the instant application, the Yalkowsky '026 patent teaches a tablet formed from direct compression of an inert, pharmacologically acceptable, excipient microparticle having a pharmaceutically active material uniformly deposited thereon. The Yalkowsky '026 patent does not explicitly teach a particular hardness, friability and disintegration time. However, the Maish '399 patent teaches a tablet formed from a direct compression microparticulate tableting composition comprising an inert diluent, an inert lubricant, and a medicament, wherein said direct compression microparticulate tableting composition is subjected to direct compression, thereby yielding a tablet having a hardness of 16.0 daN and 18.9 daN, a friability of 0.2% and 0.2%, and a disintegration time of 1.5 seconds and 4.0 seconds, respectively (column 7, example 9, lines 30-50). It would have been prima facie obvious to one of ordinary skill in the art at the time the instant application was filed to utilize the direct compression method for making compressed tableting containing a medicament, as taught in the Maish '399 patent, because the Yalkowsky '026 patent teaches that the direct compression microparticulate tableting composition may be formed into tablets by the well-known direct compression method for making compressed tablets containing drugs. One of ordinary skill in the art at the time the instant application was filed would have been motivated to utilize the direct compression method taught in the Maish '399 patent for making compressed tablets containing a medicament, as taught in the Yalkowsky '026 patent, since the Maish '399 patent teaches utilizing a

direct compression for obtaining compressed tablets having a desired hardness, friability and disintegration time. One of ordinary skill in the art at the time the instant application was filed would have had a reasonable expectation of success in utilizing the direct compression method for making compressed tableting containing a medicament as taught in the Maish '399 patent, since the inert diluent (i.e., starch, lactose and the like) and the inert lubricant (i.e., talc) of the Maish '399 patent, are identical to the inert excipients (i.e., lactose, starch and/or talc) taught in the Yalkowsky '026 patent.

With respect to claims 13 and 16 of the instant application, the Yalkowsky '026 patent teaches direct compression of an inert, pharmacologically acceptable, excipient microparticle having a pharmaceutically active material uniformly deposited thereon. However, the Yalkowsky '026 patent does not explicitly teach a particular compression force. Although the Maish '399 patent teaches a tablet formed from a direct compression microparticulate tableting composition comprising an inert diluent, an inert lubricant, and a medicament, wherein said direct compression microparticulate tableting composition is subjected to a direct compression pressure of 1100 pounds per square inch (psi) and 2100 psi (column 7, example 9, lines 30-50), the Maish '399 patent likewise does not explicitly teach a direct compression force in units of kilonewtons (kN). Therefore, neither the Yalkowsky '026 patent nor the Maish '399 patent explicitly teach a tablet formed from a particular direct compression force of between 5 kN and 50 kN. However, while neither the Yalkowsky '026 patent nor the Maish '399 patent explicitly teach a tablet formed from a particular direct compression force of between 5 kN and 50 kN, it is well within the purview of the skilled artesian to determine the optimal direct compression force by systematically adjustment during the course of routine experimentation. One of ordinary skill in the art at the time the instant application was filed would have been motivated to systematically adjust the direct compression force during the course of routine

experimentation so as to obtain a tablet having a desired hardness, friability and disintegration time. "Where the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." See *In re Aller*, 105 USPQ 233, 235 (CCPA 1955). "The normal desire of scientists or artisans to improve upon what is already generally known provides the motivation to determine where in a disclosed set of percentage ranges is the optimum combination of percentages." See *Peterson*, 65 USPQ2d 1379, 1382 (Fed. Cir. 2003).

Examiner's Response to Applicant's Remarks

Upon further consideration, and in light of the claim amendment to independent claim 11, the prior rejection of pending claims 11 and 12 under 35 U.S.C. § 102(b) as being anticipated by European Patent Application Publication 1990/0361874 (hereinafter the Koyama '874 publication) has been withdrawn. Therefore, although the Applicant's arguments attempting to traverse the aforementioned prior art rejections have been fully considered, they are moot in view of the new grounds of rejection set forth hereinabove.

Conclusion

Claims 1-16 are rejected because the claimed invention would have been anticipated and/or prima facie obvious to one of ordinary skill in the art at the time the invention was made since each and every element of the claimed invention, as a whole, is disclosed in and/or would have been reasonably suggested by the teachings of the cited prior art references. However, because the grounds of rejection, as set forth hereinabove, are *de novo*, the instant Official Action is made **Non-Final**.

Contact Information

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to David P. Stitzel, Esq. whose telephone number is 571-272-8508. The Examiner can normally be reached on Monday-Friday, from 7:30AM-6:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Sreenivasan Padmanabhan can be reached at 571-272-0629. The central fax number for the USPTO is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published patent applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished patent applications is only available through Private PAIR. For more information about the PAIR system, please see http://pair-direct.uspto.gov. Should you have questions about acquiring access to the Private PAIR system, please contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

David P. Stitzel, Esq.

SREENI PADMANABHAN
SUPERVISORY PATENT EXAMINER